with Installation Instructions

Owner's Manual

banks iQ

MAN-MACHINE INTERFACE®

2003-2010 Ford Power Stroke
2001-2010 Chevy Duramax
2003-2007 Dodge Cummins

THIS MANUAL IS FOR USE WITH KITS 61141-61156, 63777 & 63778

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Introduction

WELCOME TO THE WORLD OF Banks iQ

Congratulations on your Banks iQ purchase. You're about to discover that Banks iQ is designed to help you get the most out of your entire driving experience. Besides being fun and easy-to-use, Banks iQ's graphic, intuitive design makes each screen and feature a breeze to navigate. Use this manual to get you started. As Banks iQ develops, we will be updating this manual both in print and online at **www.bankspower.com/banksiq**.

If you already own or purchased a Banks Power Tuner, Speed Loader, or SpeedBrake along with your Banks iQ, you now have the most sophisticated and user-friendly way to interact with these performance and safety devices. Choose, select and change gauges in the display, adjust power and brake intensity levels on-the-fly, change on-screen safety alerts—all at the touch of a virtual button.

Ready to see the results of your tuning efforts? Banks iQ clocks your 0-60 mph, 1/8-mile and 1/4-mile performance runs. Performance runs are automatically stored for later retrieval with a time-and-date stamp. With Banks iQ, you can also scan and clear OBD II diagnostic codes. It gives you virtually endless functionality and fits in a mount on your windshield.

Tuning and improving your vehicle's performance is just the beginning. With Banks iQ, you also have access to a host of Productivity tools, including Wordpad, a calculator and other applications designed to work with your Microsoft® Office documents. View PDF files and PowerPoint presentations all on the go. There are also a variety of Entertainment functions, including music and video players, an e-book reader, and more. You can even download and play compatible games.

Don't forget, we're always working on expansions, upgrades, and new applications that will make your Banks iQ do even more. So be sure to register at **www.bankspower.com/banksiq** to receive important e-mail alerts regarding updates and upgrades for your Banks iQ device. Or call us with questions at **1-800-GET POWER.**

iQ Box Contents

Item Description	Qty
Banks iQ	1
Cable (Mini B to USB)	1
Banks iQ Mounting Clip	1
Windshield Mount	1
Instruction Manual	1
Quick-Start Sheet	1
Banks Bridge Module	1
AC Outlet Wall Charger	1

Please refer to your Banks Power Tuner or SpeedBrake® Owner's Manual for contents supplied with each of those products.

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Disclaimer of Liability & Warranty

Do not use this product until you have carefully read the following agreement.
This sets forth the terms and conditions for the use of this product. The installation of this product indicates that the BUYER has read and understands this agreement and accepts its terms and conditions.

DISCLAIMER OF LIABILITY

Gale Banks Engineering Inc., and its distributors, employees, and dealers (hereafter "SELLER") shall in no way be responsible for the product's proper use and service. The BUYER hereby waives all liability claims.

The BUYER acknowledges that he/she is not relying on the SELLER's skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extended beyond the description on the face hereof and the BUYER hereby waives all remedies or liabilities, expressed or implied, arising by law or otherwise, (including without any obligations of the SELLER with respect to fitness, merchantability, and consequential damages) whether or not occasioned by the SELLER's negligence.

The BUYER is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications and agrees to hold the SELLER harmless from any damage resulting from the failure to adhere to such specifications.

The SELLER disclaims any warranty and expressly disclaims any liability for personal injury or damages. The BUYER acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and the BUYER agrees to indemnify the SELLER and to hold the SELLER harmless from any claim related to the item of the equipment purchased. Under no circumstances will the SELLER be liable for any damages or expenses by reason of the use or sale of any such equipment.

The BUYER is responsible to obey all applicable federal, state, and local laws, statutes, and ordinances when operating his/her vehicle, and the BUYER agrees to hold SELLER harmless from any violation thereof.

The SELLER assumes no liability regarding the improper installation or misapplication of its products. It is the BUYER's responsibility to check for proper installation and if in doubt, contact the manufacturer.

The BUYER is solely responsible for all warranty issues from the automotive manufacturer.

The use of this device signifies automatic approval of these conditions.

LIMITATION OF WARRANTY

Gale Banks Engineering Inc. (hereafter "SELLER"), gives Limited Warranty as to description, quality, merchantability, fitness for any particular purpose, productiveness, or any other matter of SELLER's product sold herewith. The SELLER shall be in no way responsible for the product's open use and service and the BUYER hereby waives all rights except those expressly written herein. This Warranty shall not be extended or varied except by written instrument signed by SELLER and BUYER.

The Warranty is Limited to one (1) years from the date of sale. All products that are in question of Warranty must be returned shipping prepaid to the SELLER and must be accompanied by a dated

proof of purchase receipt. All Warranty claims are subject to approval by Gale Banks Engineering Inc.

WARNING: Below 32° F (0°C) or above 140° F (60°C), the Banks iQ may be susceptible to damage as a result of extended direct exposure to sunlight, heat, or extreme cold. It is highly recommended that the Banks iQ be removed from its mounting location if the vehicle will be subjected to these conditions for an extended period of time. Gale Banks Engineering is not responsible for damage to Banks iQ resulting from exposure conditions.

Banks iQ is an electrical device. Gale Banks Engineering is not responsible for damage to any component of the device, including the LCD touch screen, caused by sharp objects, dropping, exposure to moisture, or other mishandling of the device.

Under no circumstance shall the SELLER be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product, or any other contingent expense.

Under no circumstances will the SELLER be liable for any damage or expenses incurred by reason of the use or sale of any such equipment.

In the event that the buyer does not agree with this agreement:

The buyer may promptly return this product, in a new and unused condition, with a dated proof-of-purchase, to the place-of-purchase within thirty (30) days from date-of-purchase for a full refund.

The installation of this product indicates that the buyer has read and understands this agreement and accepts its terms and conditions.

SAFETY INFORMATION

DO NOT USE Banks iQ NEAR WATER OR IN AN ELECTRICAL STORM AS THIS COULD LEAD TO AN ELECTRICAL SHOCK.

DO NOT USE Banks iQ NEAR A NATURAL GAS LEAK.

DO NOT DISPOSE OF THE RECHARGEABLE BATTERY IN A FIRE AS IT COULD EXPLODE.

The symbol of the crossed out trash bin indicates that this product (electrical, electronic equipment, and mercury-containing button cell battery) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

COPYRIGHT INFORMATION

Products and corporate names appearing in this manual are for identification purposes only. These names may or may not be registered trademarks or copyrights owned by these corporations. Their use by Gale Banks Engineering is for the express purpose of identification or explanation for the owner's benefit and is in no way meant to infringe.

DISCLAIMER

Banks Engineering reserves the right to make improvements, changes or updates to its software at any time without notice. As such the illustrations, images, and descriptions used in this manual may not match exactly the referenced screens as they appear in the latest release of the application.

Section 1
SAFETY PRECAUTIONS

Always observe safety precautions!

Gale Banks Engineering urges you to always follow safety precautions. These pages include important information intended to prevent personal injury to yourself and/or others, and property damage.

Always be sure you carefully read and understand each precaution before moving on to the rest of the manual.

⚠ **WARNING**

AC Adapter Precautions.

Use only the AC adapter that comes with Banks iQ.

Using another type of AC adapter or car adapter creates the risk of battery overheating, combustion, leaking, or explosion.

HANDLING PRECAUTIONS

• Never try to disassemble or modify Banks iQ in any way.

• Never try to change the Banks iQ battery.

• Do not wipe with a wet cloth.

Do not touch a leaking battery with your bare hands. Battery fluid can get into your eyes and cause impaired vision or blindness. Never rub your eyes, and immediately flush them thoroughly with water. Next, consult your physician. If battery fluid gets into your skin or clothing, immediately rinse the affected area with clear water.

Banks iQ contains combustible and metal parts, so water and foreign substances can cause malfunction and create the risk of overheating due to wiring insulation failure, short circuiting, smoke, fire, combustion, and electric shock.

OUTDOOR PRECAUTIONS

When outdoors, avoid using Banks iQ anywhere it might get wet with rainwater or other moisture, and/or in dusty conditions. Banks iQ is not water resistant or dust resistant. Water and dust create the risk of fire and smoke, combustion, electric shock, resulting in damage and malfunction.

Never touch Banks iQ or its electronic accessories with wet hands. This will create the risk of electric shock, short circuiting or insulation failure, fire, smoke and combustion. **Also, never allow the AC adapter or Bridge plug to become wet.**

Always stand in a safe place while using Banks iQ outdoors. Use of Banks iQ while walking can result in accident and/or personal injury.

Do not share a power source with other devices. Using an extension cord to plug in several electric devices can cause the rated current level to be exceeded, resulting in overheating of cord or outlet, fire, and other damage.

Keep micro-SD cards out of the reach of small children as they may be swallowed. If you think this might have happened, Call **911** or consult your local emergency services (police, fire, ambulance) immediately.

Do not touch Banks iQ or its plug or USB cable if there is lightning in your area.

Lightning strikes create the risk of electric shock.

IN-VEHICLE PRECAUTIONS

Use this unit in 12V/24V DC negative ground vehicles only.

⚠WARNING: Below 32° F (0°C) or above 140° F (60°C), the Banks iQ may be susceptible to damage as a result of extended direct exposure to sunlight, heat, or extreme cold. It is highly recommended that the Banks iQ be removed from its mounting location if the vehicle will be subjected to these conditions for an extended period of time. Gale Banks Engineering is not responsible for damage to Banks iQ resulting from exposure conditions.

Always drive in accordance with traffic rules and regulations. Failure to do so may result in traffic accident and injury to yourself and/or others.

Never take your eyes off the road to adjust Banks iQ settings or change screens while driving vehicle. Doing so can result in a traffic accident. Always stop your vehicle in a safe place before operating the unit.

Only look briefly at Banks iQ screen images while operating your vehicle. Doing otherwise can take your mind off the road and create the risk of a traffic accident and injury to yourself and/or others.

Do not set volume level too high. Blocking out the sound of other vehicles and traffic can create the risk of a traffic accident.

Never use headphones while operating a motor vehicle. This can create the risk of a traffic accident and may be considered illegal.

Never install Banks iQ in a location where it will interfere with operation of the motor vehicle, block the driver's view, or where it may endanger passengers. Installing the unit near the shift lever, brake pedals or other vehicle controls, or block front, side or rear vision, can create the risk of a traffic accident and cause injury to yourself and/or others.

Never install Banks iQ where it can interfere with airbag operation. Do not install in a location where deployment of the airbag cause Banks iQ or its parts to become projectiles. Also, be sure to check installation precautions for your exact vehicle model and year.

Make sure to install the Banks iQ mount so it does not come off or fall down. Clean off any dirt and wax from the installation location, and install securely. Using or re-using two-sided tape will cause inadequate adhesion, causing the mount to come off and can cause an accident. Periodically check the adhesion and installation condition of the cradle.

PRECAUTIONS FOR USE IN VEHICLE

Use only the items that come with this unit and the Banks products it was designed to interface with. Use of non-specified items can damage the vehicle interior or result in a poor fit, creating the risk of accident, malfunction, or fire.

Install Banks iQ where it is out of the reach of small children. Failure to do so can cause an injury to the child or others due to mishandling of Banks iQ.

Do not install Banks iQ in a location where it will be splashed by water or subjected to large amounts

of humidity, dust, or oil smoke. This can increase the risk of smoke, combustion, electric shock, and accident.

PRECAUTIONS DURING USE

Liquid Crystal Display (LCD)

• The LCD scratches easily, so be sure to use only your finger or the stylus to perform touch operations.

• Do not use commercially available LCD protection film. This can result in poor touch panel operation.

• To protect the LCD, avoid exposure to direct sunlight while not in use. Using a car sunshade or other means to block the sun is recommended.

• Excessively low temperatures may cause failure of video images to appear or respond slowly. It also can cause strange video image movement and deterioration.

• Do not clean Banks iQ while power is turned on. When wiping the LCD, use a dry soft, micro-fiber cleaning cloth.

• Do not use a paper towel to clean the screen.

• When transporting Banks iQ, make sure that the LCD screen does not come in contact with any foreign objects.

CARRYING THE UNIT

• Never pick up the unit while holding the LCD.

• Never put excessive pressure on Banks iQ by sitting with it in your pocket, putting a heavy object on it, etc.

• Turn off power and put Banks iQ into a bag or other holder when carrying it.

NOTE: While you can store Banks iQ in 'Sleep Mode', switching the device off will lengthen the battery's charge.

When Not in Use. Store Banks iQ in a place where it is not subject to extremely high or low temperatures. Room temperature is best.

Precautions during Use Inside a Motor Vehicle. Always be sure to use Banks iQ in accordance with local rules and regulations.

-END, SECTION 1-

Section 2
QUICK START

Banks iQ comes with a fully rechargeable battery. After Mounting and Connecting, see **Section 3**, simply plug the supplied Banks iQ USB interface cable into the device's power connection. See **Figure 2**. When used in your vehicle, Banks iQ will display an orange light and operate on the vehicle's power source. When out of the vehicle, Banks iQ can be charged with the supplied AC-outlet wall charger. Banks iQ can also be charged by plugging the supplied USB cable into a compatible computer connector. Upon being fully charged, Banks iQ will display a green light.

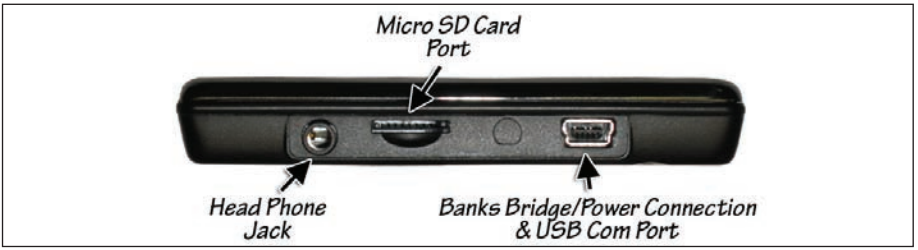
Press and hold the Power button to turn Banks iQ on. Within a few minutes, the Banks iQ will adjust for time, date and time zone using a GPS information. It even adjusts automatically for daylight savings time.

NOTE: When Banks iQ is powered off, date and time information is lost until the device has been restarted and locates a GPS signal.

Use the on-screen buttons to access and use all enabled Banks iQ's functions.

Figure 1 *Banks iQ*

Figure 2 *Left Side Edge*



For Banks Power Tuner and/or SpeedBrake Users

The Banks iQ is a versatile touch-screen interface between your Banks Power Tuner and/or SpeedBrake and your vehicle. With the touch of the screen, you can change power levels or brake settings on-the-fly. These are just two of the numerous parameters Banks iQ lets you adjust while connected to a Banks Power Tuner and/or SpeedBrake. It displays data from any five engine gauges you select.

NOTE: Banks iQ will only display Banks Power Tuner, SpeedBrake, or other Banks software functions if you have purchased them. Remember, you can upgrade your Banks iQ as new software is developed and learn more about other Banks iQ applications anytime at ***www.bankspower.com/banksiq****. To purchase, call us toll-free at* ***1-800-635-4565.***

Receive Update Notices

Banks iQ is constantly evolving. We invite you to register at **www.bankspower.com/banksiq** to receive important emails regarding updates and upgrades for your Banks iQ device.

For more detail instruction to update your Banks iQ please go to banks website at www.bankspower.com/iqupdate

-END, SECTION 2-

Section 3
MOUNTING AND CONNECTING THE BANKS iQ

1. Locate the Window Mount Assembly in your kit.

2. Assemble the Banks iQ docking station to the Universal mount by inserting and sliding the Universal mount tab into the docking station groove. Hand tighten the nut behind the docking station to hold the docking station in place.

3. Attach the window mount to your Banks iQ. See **Figure 3**. Align and place the two (2) lower tabs on the window mount to the corresponding slots on the bottom of the iQ first then snap the top of the iQ into place.

NOTE: Due to the snug fit, use caution when installing the Banks iQ into the window mount.

4. Find a suitable place on the windshield for ease of access and viewing of Banks iQ. Use location shown in **Figure 4** as a reference for mounting Banks iQ in your vehicle. Loosen the knob and move the swivel suction plate to achieve desired viewing angle of the Banks iQ screen. Do a test fit and note the angle necessary to achieve the correct viewing angle.

5. Make sure the suction cup and the mounting area on the windshield are clean and dry. With the suction lever in the up position, ensure the suction cup is flat against the windshield, and then push the suction lever down to secure in place.

Figure 3 *Attaching Banks iQ to window mount*

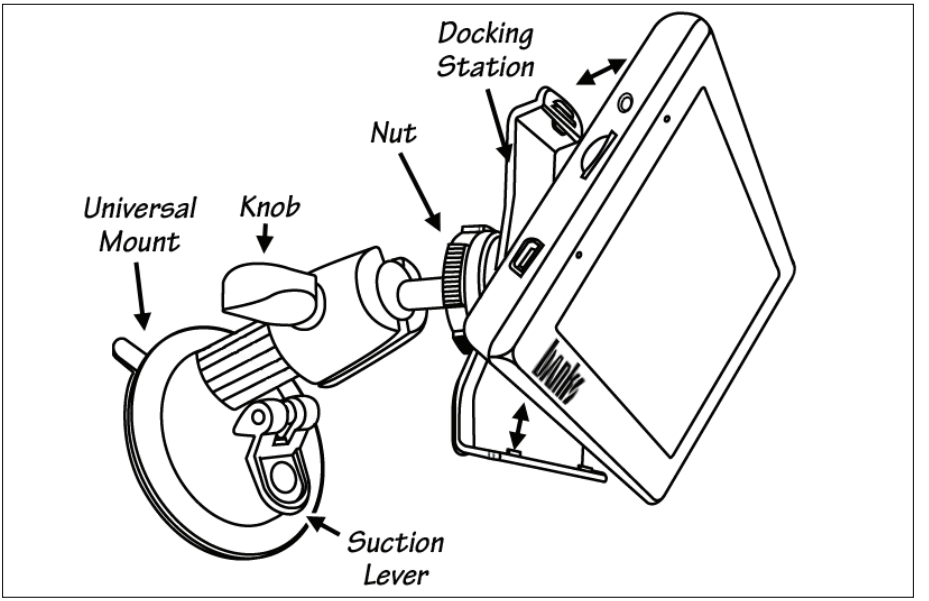


Figure 4 *Suggested Mounting location for Banks iQ, Chevy LMM Shown*

Figure 5 *Banks iQ System*

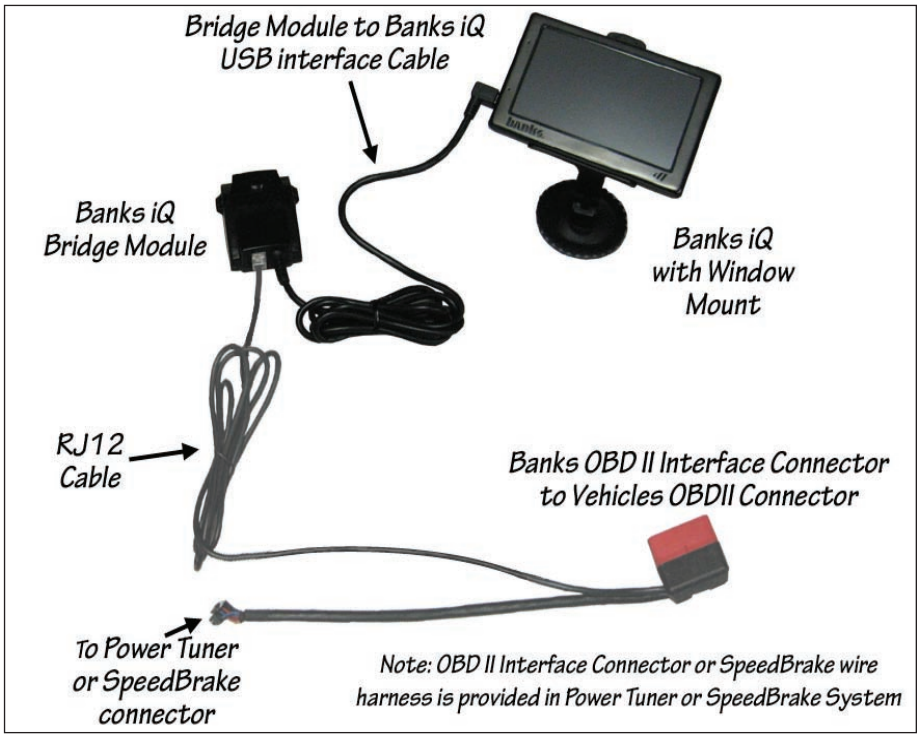


Figure 6 *Banks Bridge Module*

Connecting Banks iQ

6. Locate the RJ12 Cable (similar to telephone connector) on your OBDII interface cable or SpeedBrake wire harness connected to the vehicle's OBD II connector. See **Figure 5**.

7. Locate Banks iQ Bridge Module and connect the RJ12 connector into the Bridge Module. See **Figure 6**.

8. Route the Banks iQ USB interface cable on the Banks iQ Bridge Module to reach the Banks iQ and connect it to the left receptacle on the iQ.

NOTE: You may need to loosen or remove dash panel or covers to install the interface cable between dash crevice or behind dash panels.

WARNING: THE CHARGING CABLE CONNECTED TO THE BANKS iQ IS DESIGNED TO SUPPLY A CONSTANT LOW-VOLTAGE POWER SOURCE (+5VDC) TO THE BANKS iQ AND IS "LIVE" AS LONG AS THE SYSTEM'S OBD II INTERFACE CABLE OR BANKS WIRING HARNESS IS COMPLETELY INSTALLED AND THE USB CABLE CONNECTOR IS PLUGGED INTO BANKS iQ. ALTHOUGH THIS CHARGING CABLE CIRCUITRY IS FUSE-PROTECTED, THE USER IS EXPECTED TO TAKE APPROPRIATE MEASURES TO PREVENT SMALL CHILDREN AND/OR PETS FROM CONTACT WITH ANY PART OF THIS SYSTEM.

9. Secure Banks iQ Bridge Module under the dash to any dash frame support using the supplied cable ties. Use the cable tie support loops on the side of the Bridge Module to securely fasten it under the dash.

10. Route all wiring away from any pedals or other moving components. Using the cable ties supplied, secure the wiring under the dash.

-END, SECTION 3-

Section 4
SOFTWARE INTRODUCTION

Figure 7 *Start up*

NOTE: Banks iQ will only display Banks Power Tuner, SpeedBrake, or other Banks software functions if you have purchased them. Remember, you can upgrade your Banks iQ as new software is developed and learn more about other Banks iQ applications anytime. Register at www.bankspower.com/banksiq to receive important e-mail alerts regarding updates and upgrades for your Banks iQ device. Or call us with questions at 1-800-GET POWER.

Turn the Banks iQ on by pressing and holding the 'Power' button on top of Banks iQ. Start-up will take a few seconds while the Banks iQ scans to see if Banks Power Tuner and/or SpeedBrake are enabled. After initial start-up, Banks iQ will display the 'Environment Select' Menu. See **Figure 8 & 9**. To navigate through the menu press the left or the right arrows. The Banks iQ will display the options available for your vehicle.

If a Banks Power Tuner and a SpeedBrake are installed, both can be controlled in one Environment Screen. If only a Banks Power Tuner or a SpeedBrake is installed, select the environment to control that specific device. After a selection has been made, the Banks iQ will start in the selected Environment Screen. To access other applications, press the 'Banks iQ Home' icon at any time in the lower left hand side to return to the Environment Select Menu. See **Figure 10**.

Sleep Mode

When Banks iQ is connected to your vehicle it will go into 'Sleep Mode' whenever the vehicle is turned off.

NOTE: For some vehicle models, Banks Power Tuners will stay on for approximately one minute after the vehicle is shut off. The iQ will turn off after the Power Tuner turns off.

For some vehicle models, If in the Navigation Environment, the iQ may require to be put into sleep mode manually.

There is no need to exit the Banks iQ application or to turn the iQ off. Banks iQ will automatically 'Wake Up' when the vehicle ignition is turned on or the 'Power' button is pressed.

When Banks iQ is disconnected from the vehicle or power supply, the iQ will go into 'Sleep Mode' if no activity is

Figure 8

Figure 9

detected within an allotted time. The time for the iQ to go into 'Sleep Mode' can be changed by pressing on the 'Battery Management' button in the 'Adjustments' menu. Refer to **Section 18** to change settings.

The iQ may be turn off or put into sleep mode manually at any time by pressing and holding the 'Power' button. Then select the 'Sleep Mode', 'Off', or 'Cancel' button on the screen.

Figure 10

NOTE: When the iQ senses that the vehicle is in motion some features will be inaccessible. The feature icons will be grayed out during that time.

-END, SECTION 4-

Section 5

WORKING WITH POWER ENVIRONMENT, SAFETY ENVIRONMENT, AND COMBO POWER/SAFETY SCREEN

Press the 'Power' button in the ENVIRONMENT SELECT screen to access the Tuner and/or combo Tuner/SpeedBrake.

Press the 'Safety' button on the ENVIRONMENT SELECT screen to access the SpeedBrake and or combo Tuner/SpeedBrake.

Power Environment, Safety Environment and Combo Power/Safety Screens all display the following: five user-selectable Gauges, Status Indicator, and Brake or Power level. See **Figure 11**.

Press the Wrench icon to see the 'Adjustments' menu.

Select any five gauges that you want to show on your display. To change a gauge, simply press on it and you will be taken to the 'Gauge Placement' screen featuring the gauge you selected. Refer to **Section 19** for instruction on how to change each gauge. The gauges can also be changed to display in English or metric units. Refer to **Section 18** for instruction on how to change units.

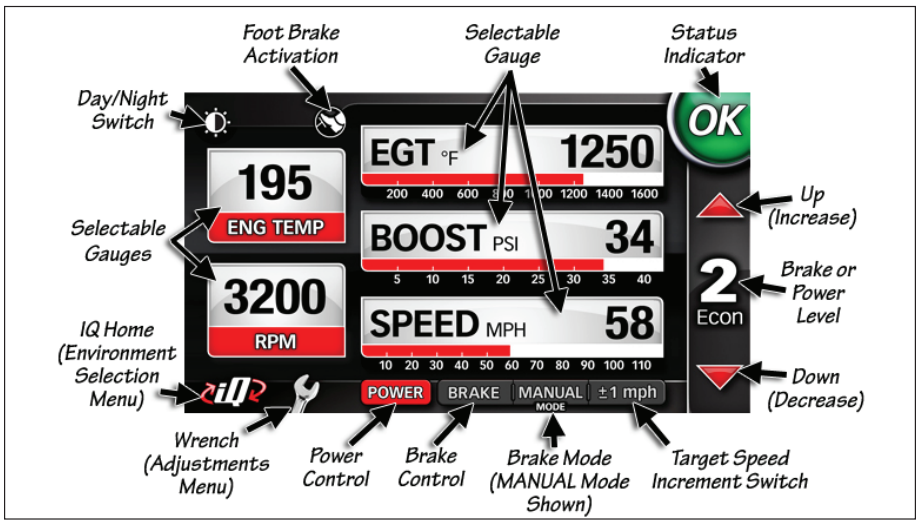
The Status Indicator in the upper right-hand corner of the screen displays the communication status between the Banks iQ and Banks Power Tuner and/or SpeedBrake. In the event that an on-screen alert or Banks Power Tuner/SpeedBrake malfunction is triggered, a status alert will appear in the upper right-hand corner of the screen. See **Figure 48**. Press on the status alert for more information about the alert condition.

Below the Status indicator are the Up and Down arrows. Press on the arrows to increase or decrease Power level, Brake strength, or target speed with the corresponding change displayed in between the arrows. Refer to **Section 6, 7, & 8** for instruction on use.

For 'Braking' or 'Braking & Power' environment, the active device or mode will be highlighted in red in the lower part of the screen. Refer to **Section 7 & 8** for instruction on use.

On the lower left hand corner of the screen is the 'Banks iQ Home' icon, which will direct you back to the 'Environment Select' menu, and the

Figure 11 *Combo Tuner and Brake Screen Shown.*



'Wrench' icon that will direct you to the 'Adjustments' menu. For more description of the 'Adjustments' menu, please see **Section 17**.

For more information regarding the Banks Power Tuner, please refer to **Section 6.**

The Safety and combo Power & Safety screens have additional buttons that allow you to choose your Braking Mode. For more information, please refer to **Section 7 & 8**.

The combo Power & Safety screen allows you to switch quickly between Power and Safety environments. For more information, please refer to **Section 8**.

-END, SECTION 5-

Section 6
POWER ENVIRONMENT

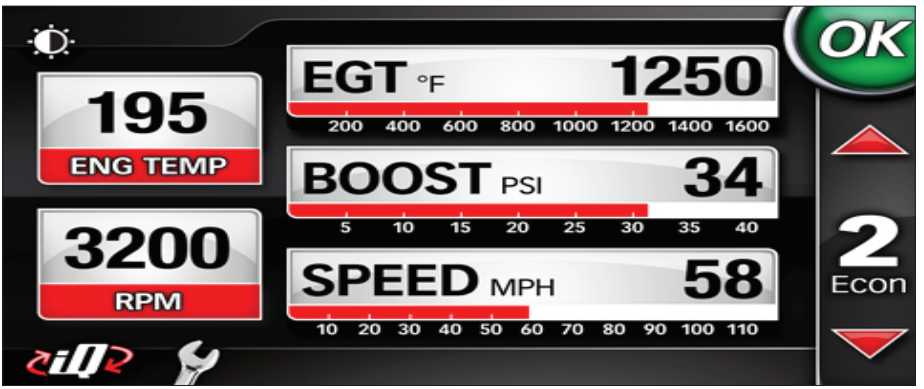
Your Banks Power Tuner features selectable power levels are 1 thru 6. Level 1 is the vehicle's stock power. Level 2 is the EconoMind® setting, specifically designed to improve fuel economy. Level 3 thru 6 produce incremental power increases along with EconoMind features. The Speed-Loader level offers the maximum power available and will appear as 'SL' when enabled. The selection of a power level can be done on-the-fly while driving.

To increase power level, press the 'Up' arrow. To decrease the power level, press the 'Down' arrow on the right side of the screen. See **Figure 12**. Power level is displayed in-between the arrows.

On the lower left hand corner of the screen are the 'Banks iQ Home' icon, which will direct you back to the 'Environment Select' menu, and the 'Wrench' icon that will direct you to the 'Adjustments' menu. For more description of the 'Adjustments' menu, please see **Section 17**.

To prevent damage to the factory transmission, Banks recommends that automatic transmission vehicles do not exceed level 4 with the Banks iQ while the vehicle is experiencing load (towing, climbing a steep grade, carrying a load, etc.).

Figure 12 *Power Screen*



ENABLING THE SPEED-LOADER LEVEL

THIS IS A HIGH PERFORMANCE PRODUCT. USE AT YOUR OWN RISK. PLEASE READ THE DISCLAIMER OF LIABILITY ON PAGE 4.

Enabling the Speed-Loader requires either a manufacturer-installed thermocouple or the EGT Thermocouple that was included in your kit be installed. If the Speed-Loader is enabled and the thermocouple has not been installed, the tuner will detect the missing thermocouple, resulting in a tuner fault.

NOTE: Refer to your Six-Gun Tuner Manual for thermocouple installation instructions if vehicle is not equipped with a manufacturer-installed thermocouple. After the thermocouple installation is complete then return to ***Section 6*** *to enable 'Speed-Loader' power level.*

NOTE: The Banks iQ is required to be connected and the ignition key on to configure Speed-Loader power level.

To Enable or Disable Speed-Loader

1. Press the wrench icon to move to the 'Adjustments' menu.

2. In the 'Adjustments' menu, press on the 'Speed-Loader' button. A Warning display screen will appear. Read the warning and press 'I Decline' to cancel and return to the 'Adjustments' menu or press 'I Accept' to continue to enable the Speed-Loader level.

WARNING! Speed-Loader is more aggressive than power level 6! By enabling this level you accept all risks and agree to the warnings and limitations of liability stated in the Six-Gun owners manual. The tuner will record access to the Speed-Loader level.

3. In the next screen press the 'Speed-Loader is Enabled' button to enable the Speed-Loader or the 'Speed-Loader is Disabled' to disable. See **Figure 13**.

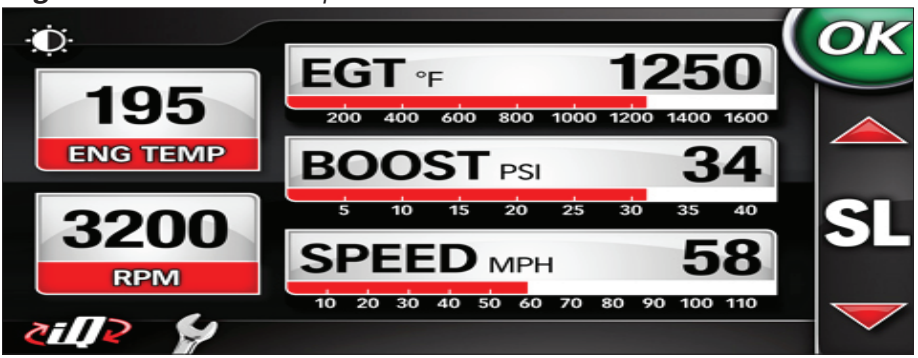
4. On the lower left hand corner of the screen is the 'Banks iQ' icon, which will direct you back to the Power Environment Screen.

5. To increase to the Speed-Loader level, press the 'Up' arrow. See **Figure 14**. Power level is displayed in-between the arrows. The Speed-Loader level is activated.

-END, SECTION 6-

Figure 13 *Speed-Loader Enable/Disable Screen*

Figure 14 *Power Screen Speed-Loader Level*



Section 7
SAFETY ENVIRONMENT

The SpeedBrake has three operating modes; MANUAL, AUTO and OFF. In the MANUAL mode, the SpeedBrake will activate and will downshift the transmission and adjust the turbocharger vanes, resulting in a braking effect that slows your vehicle to 15 mph. In AUTO mode, the SpeedBrake varies the position of the turbocharger vanes and selects an appropriate gear in order to maintain a pre-selected target speed. Choosing the OFF mode allows the vehicle to behave as if the SpeedBrake is not present.

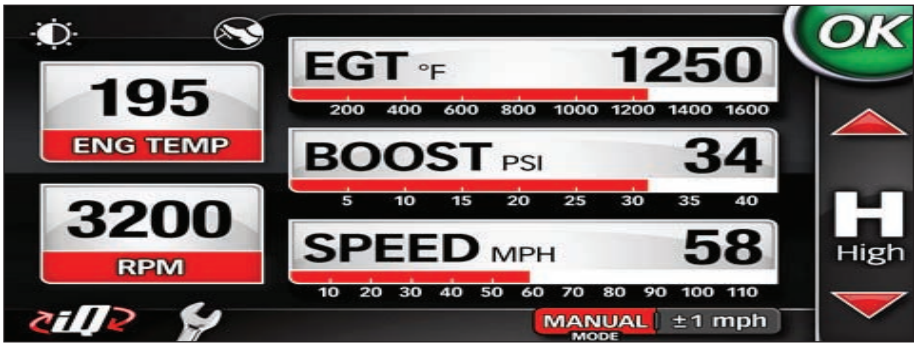
To change between modes, press the 'Mode' button on the lower portion of the screen. See **Figure 15**.

MANUAL Mode

While in the MANUAL mode, there are three strength selections available: HIGH, MED (medium) and LOW. Press the 'Up' arrow to increase the brake strength or the 'Down' arrow to decrease the strength on the right side of the screen. Brake strength will be displayed in-between the Up and Down arrows.

HIGH strength achieves the highest level of braking force by aggressively downshifting the transmission and closing the turbocharger vanes. This setting is recommended for heavily loaded vehicles or whenever aggressive braking is desired.

Figure 15 *Manual Mode*



MEDIUM (MED) strength achieves a moderate level of braking force by slightly delaying transmission downshifts. This setting is recommended for moderately loaded vehicles.

LOW strength setting achieves a lower level of braking force and is recommended for lightly loaded or unloaded vehicles. The LOW setting may also be used for daily driving.

CAUTION: Using the HIGH setting with a lightly loaded vehicle will result in VERY aggressive braking. Become familiar with the characteristics of the Strength Settings before encountering slippery road conditions, including rain, snow and icy.

MANUAL Mode Foot Brake Activation

If Foot Brake Activation is disabled, the SpeedBrake will activate after releasing the acceleration pedal and vehicle speed is above 15 mph, regardless of whether or not the foot brake is used. If the Foot Brake Activation is enabled the SpeedBrake will only activate when the foot brake is applied.

To Enable or Disable Foot Brake Activation press on the 'Foot Brake Activation' Icon on the top of the screen. See **Figure 16**. The Foot Brake Activation is enabled when the icon is highlighted and disabled when crossed out.

Figure 16

Foot Brake Activation Icon

AUTO Mode

While in the AUTO mode, press the Up arrow to increase the target speed or press the Down arrow to decrease the target speed in increments of 1 MPH or 5 MPH.

Press on the 'Target Speed Increment Switch' button to select the increment value (1 MPH or 5 MPH). See **Figure 17**.

AUTO mode uses various functions of Banks SpeedBrake to keep the vehicle at the driver's pre-set target speed. When AUTO mode is active and the vehicle is above the targeted speed, Banks SpeedBrake will cause braking activity to take place and slow the vehicle to the targeted speed and then adjust to maintain it. Banks SpeedBrake activity will include varying the position of the turbocharger vanes, selecting the appropriate transmission gear and

Figure 17 *AUTO Mode*

selectively locking the torque converter clutch. Banks SpeedBrake will become inactive as soon as the vehicle drops below the targeted speed.

NOTE: If the target speed cannot be met after Banks SpeedBrake has taken all possible actions to do so, a yellow 'Foot Brake' icon to the driver will display on the Status Indicator in the upper right-hand corner of the screen to warn the driver that he/she should use the foot brake to slow the vehicle. This feature may be disabled by going to the 'On Screen Alerts' screen in the 'Adjustments' menu.

AUTO Mode Foot Brake Activation

If Foot Brake Activation is disabled, the SpeedBrake will adjust to prevent vehicle speeds over the target speed, regardless of foot brake use. If Foot Brake Activation is enabled, applying the foot brake overrides the AUTO mode and activates the 'MANUAL' mode. This may be particularly useful when a stop is needed while in SpeedBrake mode.

CAUTION: Your Banks SpeedBrake is NOT a substitute for the hydraulic brakes on your truck. The device will not correct or compensate for improperly maintained hydraulic brakes. Also, please be aware that your Banks SpeedBrake is not designed to be used as a parking brake or to bring your vehicle to a complete stop. Your Banks SpeedBrake is a supplementary braking system designed to help you slow down or to assist you in maintaining a more constant speed when descending a grade. Remember that this SpeedBrake is first and foremost a preemptive device and is most efficient when used to help prevent, rather than correct, a vehicle over speed situation.

The use of a Banks SpeedBrake does not increase the load capacity of your vehicle. Gross combined Weight Rating specifications should always be adhered to. The Banks SpeedBrake will allow you to slow your vehicle more effectively within your vehicle's weight specifications.

In the lower left hand corner of the screen is the 'Banks iQ Home' icon, which will direct you back to the 'Environment Select' menu, and the 'Wrench' icon that will direct you to the 'Adjustments' menu. For more description of the 'Adjustments' menu, please see **Section 17**.

OPERATION/DRIVING

Now that you are familiar with the features that are available with Banks SpeedBrake, it is recommended that you experiment with the various settings prior to using the braking features in a towing or extreme driving situation. Under light load conditions on local streets, the MANUAL mode in the MEDIUM (MED) setting is an appropriate starting point to provide a reasonable demonstration that the brake is functioning.

NOTE: Whenever the brake is active and the footbrake is applied, the vehicle will not upshift until the throttle is pressed. This is also true even if cruise control is resumed.

WHEEL SLIP DETECTION

The Banks Speedbrake continuously monitors wheel speeds to detect possible slippage caused by braking. If this occurs, the brake will shut off until traction is regained and then remain off for 30 seconds. This will be communicated as a fault via the Banks iQ Status Indicator.

-END, SECTION 7-

Section 8
COMBO POWER & SAFETY SCREEN

Press the 'Power' button on the bottom part of the screen to change power levels with your Banks Power Tuner. Press the 'Brake' button to change brake modes, select brake intensity, and target speed with your SpeedBrake. This option is only available if both a Banks Power Tuner and SpeedBrake are purchased and installed in your vehicle.

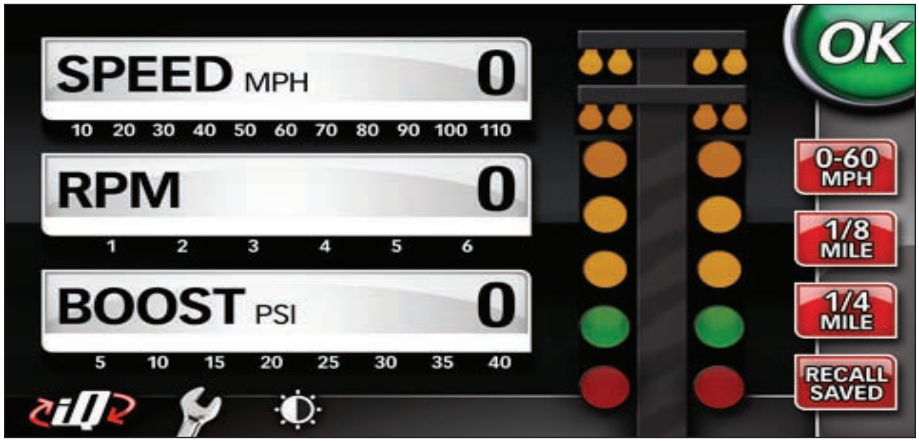
The active devices and settings will be highlighted in red at the bottom of the screen. See **Figure 18**.

On the lower left hand corner of the screen is the 'Banks iQ Home' icon, which will direct you back to the 'Environment Select' menu, and the 'Wrench' icon that will direct you to the 'Adjustments' menu. For more description of the 'Adjustments' menu, please see **Section 17**.

-END, SECTION 8-

Figure 18 *Combo Power & Safety Screen*

Figure 19 *Performance Test*



Section 9
PERFORMANCE ENVIRONMENT

Banks iQ performance testing allows the user to run a 1/8 mile, 1/4 mile, or a 0-60 MPH test run.

Setting up for Performance Testing

1. Press the 'Performance' button in the 'Environment Select' menu. The Performance Screen will appear. See **Figure 19**.

2. Banks iQ lets you change any of the gauges on view in the Performance display. Changing the displayed gauges does not affect the measurements actually being recorded during the test. If you would like to change these gauges, simply press the gauge you want to change and you will be taken to the Gauge Placement menu. See **Section 19**.

3. Select the performance test you want to run: '0-60 MPH', '1/8 Mile', '1/4 Mile'. See **Figure 20**.

4. Adjust the Power Level on the left if desired.

5. Press the 'Start Test' button.

NOTE: To ensure accuracy, the vehicle must be completely stopped when pressing the 'Start Test' button. After pressing the 'Start Test' button, the Banks iQ will immediately arm itself and wait for vehicle motion to begin recording.

6. The "Christmas Tree" Yellow Light will flash.

7. Test begins when Green Light flashes on and accelerator pedal is pushed.

NOTE: You can begin the test any time after the 'Start Test' button is pressed by pushing on accelerator pedal or making the wheels roll.

Recommended Performance Test Procedure:

A. *Foot firmly on brake, vehicle at rest, select drive gear.*

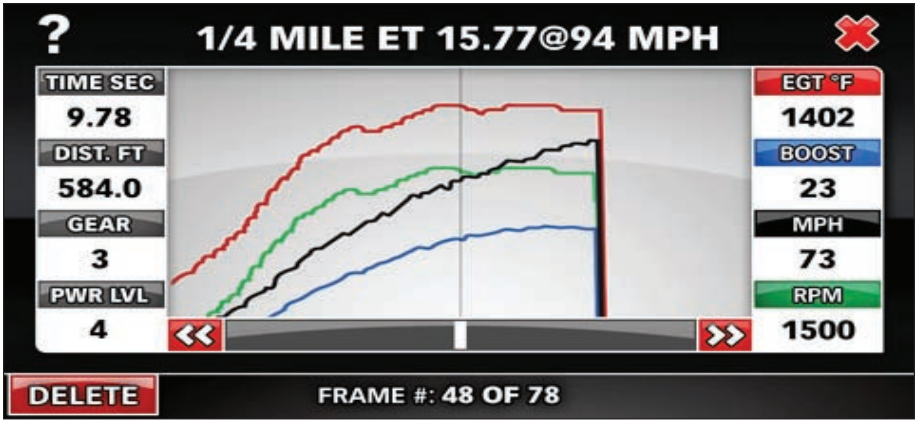
B. *Select the desired 'Performance Test'.*

C. *Press 'Start Test'. Wait for green light.*

D. *Test begins once vehicle motion is detected.*

Figure 20 *Start Test*

Figure 21 *Performance Test Results*



8. When the performance test is finished, Banks iQ immediately displays a results screen showing elapsed time/speed/distance measurements along with default gauge readings for the run. See **Figure 21**. Each completed Performance Test is saved for future analysis. Exit the result screen and return to the Performance Environment by pressing the 'X' in the upper right-hand corner.

Viewing Saved Performance Tests

9. To view a previously completed Performance Test touch the button labeled 'Recall Saved'.

10. Use the Up and Down arrow buttons to highlight the Performance Test you want to review.

NOTE: All tests are date and time stamped to conveniently help search for the desired Test run.

11. Touch the button labeled 'Review Test' to view in detail the results of the saved Performance Test.

Use the 'Left' and 'Right' arrow buttons to move the cursor one frame at a time in the displayed graph area. Moving between the frames will automatically update the displayed parameter values.

NOTE: Use of this feature will be suspended while the vehicle is in motion. Only when the Banks iQ senses that the vehicle's speed is zero can you review your saved tests.

Deleting Saved Performance Tests

12. To delete a previously saved Performance Test, highlight the saved test you wish to delete and Press the 'Delete' Button

13. A pop up window labeled 'Confirm Delete' will ask you to confirm the deletion of the test.

14. Press the button labeled 'Yes' to confirm or 'No' to decline.

15. Press the Banks Home iQ icon to return to the 'Environment Select' menu.

-END, SECTION 9-

Section 10
DIAGNOSTICS ENVIRONMENT

Receive Diagnostics Update Notices

Banks iQ is constantly evolving and new diagnostics updates may be available. We invite you to register at **www.bankspower.com/banksiq** to receive important emails regarding updates and upgrades for your Banks iQ device.

Vehicle Diagnostics

Diagnostic Trouble Codes (DTC) are error codes that are generated when there is a problem with your vehicle. If your vehicle dashboard displays a check engine light, DTC(s) will be available to assist in diagnosing the problem. You can use the Banks iQ to run a vehicle system check and display these DTC(s). A code will be given along with a brief description of the problem, a full description of the code will display below the code list when the code is highlighted. You may call your vehicle dealer or reference your vehicle service manual for description and possible corrective action to fix the problem. Once the problem has been repaired you can clear the code to turn the check engine light off.

NOTE: Keep a written record of the DTC code(s) that display on your Banks iQ for future reference before clearing them.

Check for OBD II DTC(s)

If any vehicle DTC(s) are present, troubleshoot/repair the cause. Once the cause is properly remedied, touch 'Clear Codes' and then 'Check for Codes' again to verify the problem is fixed (the OBD II code should not re-appear). You may need to complete a driving cycle for the code to not re-appear.

1. In the Environment Select menu press on the 'Diagnostics' button.

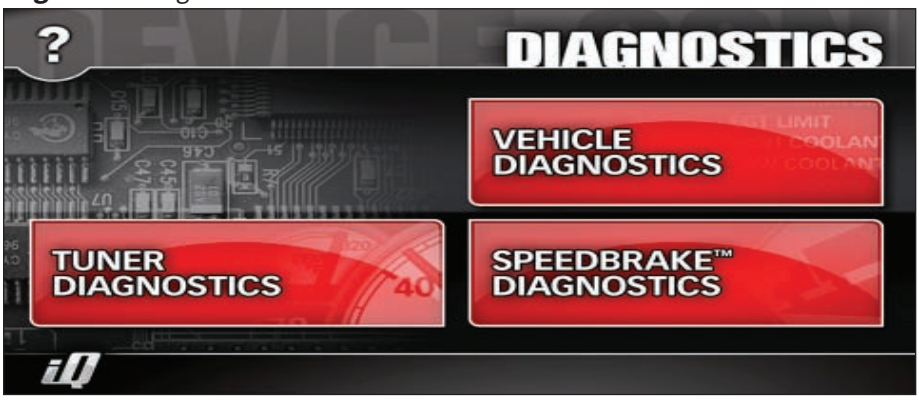
2. In the Diagnostics menu press on the 'Vehicle Diagnostics' button. See **Figure 22**.

3. With the ignition in the on/run position or with the engine running, press on the 'Check for Codes' button. See **Figure 23**.

NOTE: On certain vehicles, the ignition key must be in the On/Run position, but the engine must NOT be running. If the engine is running, Banks iQ will display a pop-up message instructing you to confirm that the ignition key is in the ON position.

NOTE: The Banks iQ will check for vehicle diagnostic codes and display either the code with a brief description or the message "No codes found". For a full description of the code, highlight the code and the description will appear below the code list box.

Figure 22 *Diagnostics Menu*



4. To return to the Diagnostics Environment screen, press the 'Banks iQ' icon. Press the 'Banks iQ Home' icon again to return to the Environment Select menu.

Clearing OBD II DTC(s)

5. After checking for and reviewing any diagnostic code, touch 'Clear Codes' to erase them from the vehicle's ECU. If multiple codes are present, they will all be cleared.

6. If diagnostic codes reoccur on your vehicle, you should investigate the underlying problem to correct it by calling your vehicle dealer or referring to your vehicle owner's manual.

Power Tuner and SpeedBrake Diagnostics

The status indicator in the upper right-hand corner will signal an error if a problem has occurred with the Banks Power Tuner or SpeedBrake. A 'Self Diagnostics' can be done of the individual device to find the underlying problem.

To run a diagnostics check, press the 'Banks iQ' icon to go to the Environment Select menu. Press on the Diagnostics button.

SHORT CUT: Press the display alert icon while the 'Banks' diagnostics icon is displayed to be taken directly to the Diagnostics Menu.

1. In the Diagnostics Menu, select the device you wish to run a diagnostic check.

2. The 'Self Diagnostics' screen displays a log of diagnostic events related to the Power tuner or SpeedBrake. See **Figure 24**.

The 'Logged Events' list takes a moment to update each time this screen is opened. Once the list is updated, the most current event will appear at the bottom of the list. Each event has an associated timestamp and description, which will be displayed below the list when that event is highlighted. Each key cycle of the vehicle produces a minimum of two logged events.

NOTE: Refer to your Power Tuner or SpeedBrake manual for a list of possible diagnostic codes and corrective action.

3. Use the arrow buttons to scroll through the recorded events.

4. Touch the 'Banks iQ' icon to return to the Diagnostics menu.

-END, SECTION 10-

Figure 23 *Vehicle Diagnostics Screen*

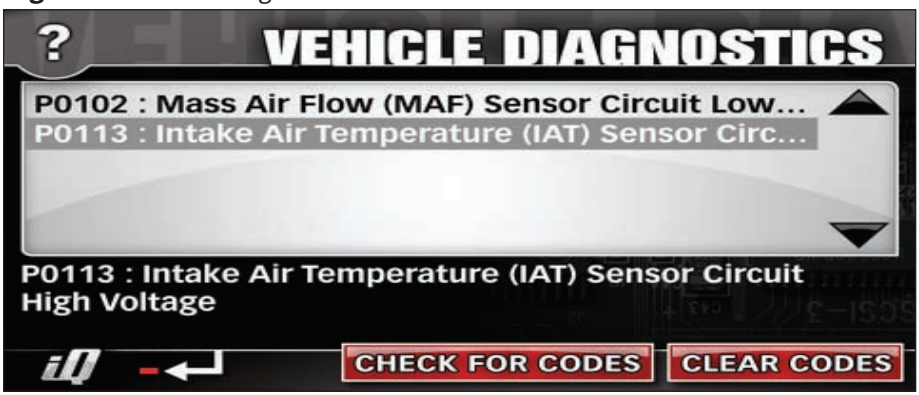
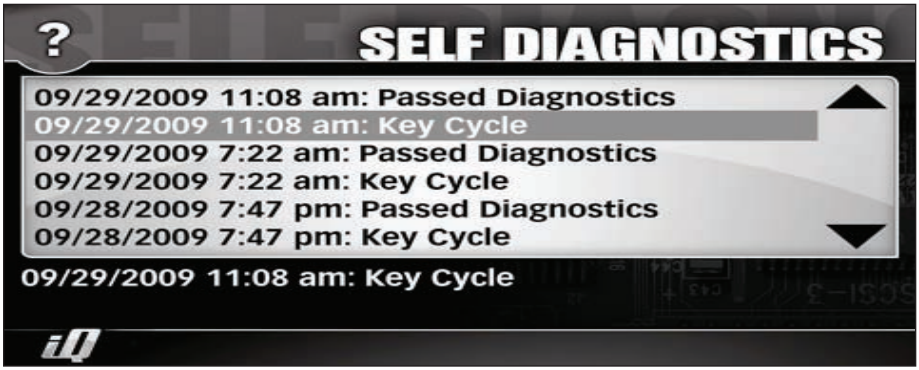

VEHICLE DIAGNOSTICS
P0102 : Mass Air Flow (MAF) Sensor Circuit Low...
P0113 : Intake Air Temperature (IAT) Sensor Circ...
P0113 : Intake Air Temperature (IAT) Sensor Circuit High Voltage
CHECK FOR CODES
CLEAR CODES

Figure 24 *Vehicle Diagnostics Screen*


SELF DIAGNOSTICS
09/29/2009 11:08 am: Passed Diagnostics
09/29/2009 11:08 am: Key Cycle
09/29/2009 7:22 am: Passed Diagnostics
09/29/2009 7:22 am: Key Cycle
09/28/2009 7:47 pm: Passed Diagnostics
09/28/2009 7:47 pm: Key Cycle
09/29/2009 11:08 am: Key Cycle

Section 11
PRODUCTIVITY ENVIRONMENT

DESKTOP

Start and work with any pre- installed application on your Banks iQ. Press an application to begin using it. See **Figure 25**.

Expand your Banks iQ system memory by installing a micro-SD card in the card slot (sold separately).

Open and read your Microsoft® Office documents. Work with the on-screen keyboard and calculator, watch videos, view pictures, listen to your favorite music, and much more.

NOTE: The Windows CE operating system comes standard in your Banks iQ and enables you to perform the productivity functions listed here. In addition, it enables Banks iQ to "talk" to and share information with other Banks products.

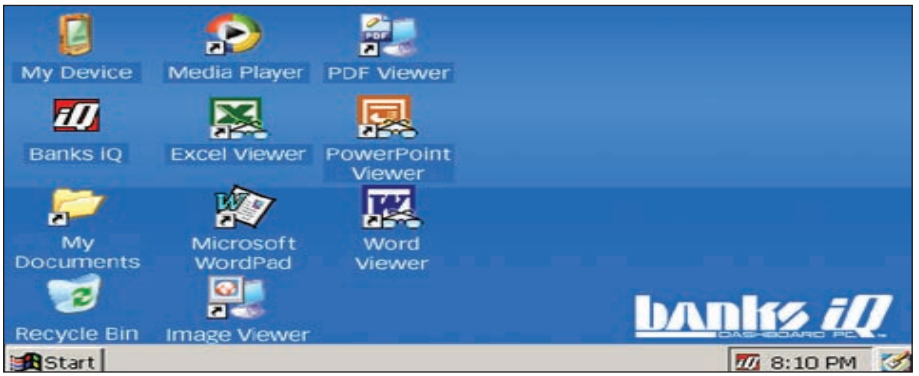
PRODUCTIVITY TOOLS

Banks iQ is like having a micro-computer with you whenever you drive. With its rechargeable on-board battery, you can take Banks iQ everywhere you go, inside or outside your vehicle.

From the ENVIRONMENT SELECT menu, press on the 'Productivity' button.

Scroll to and/or press any button on the Productivity Screen to start and use the applications listed below.

Figure 25



Desktop

Access and work with applications using the Windows CE desktop screen.

Changing Desktop Background

Banks iQ comes with four pre-programmed desktop background themes. To access and change the background displayed on your Desktop, follow these steps.

1. Touch screen with stylus (supplied) and hold until menu appears.

2. Select 'Properties', then select 'Display Properties'.

3. Click 'Browse'.

4. Click the 'Up One Folder' icon. See **Figure 26**.

Figure 26

Up One Folder Icon

5. Click 'Resident flash'.

6. Click 'Banks iQ common'

7. Click 'Wallpaper'.

8. Press the arrow in the 'Type' field in lower right screen. Select JPEG.

9. Select an image and it will appear in a preview window.

10. Repeat steps 3 through 9 to preview other desktop background options.

11. When you have found the background you want to use, select 'OK' or 'X' to exit the window and enact your change.

Loading and using your own Desktop Background

Customize your Banks iQ Desktop with a BMP—Bitmap, Bitmap (4 color), GIF—Graphics Exchange Format or JPG—JPEG image file stored on your micro SD card (sold separately). Just follow these steps.

1. Connect your micro SD card to Banks iQ. See **Figure 2** for location of ports.

2. Click on 'My Device'.

3. Click on 'SDMMC' and locate the graphic file you want to use.

4. Touch and hold the file until menu appears. Select 'Copy'.

5. Locate the 'Return' arrow at the top center of your screen and click it to return to 'My Device'.

6. Click 'Resident flash.'

7. Touch and hold anywhere on the screen until the 'Options' menu appears. Select 'Paste'.

8. Your graphic is now loaded into Banks iQ internal storage. Follow steps 1 through 5 under "Changing Desktop Background" to retrieve your image file. Continue with steps 8 through 11 to use it as your background display.

WORDPAD

- Use the stylus and virtual keyboard to type and save notes.
- Open up Word documents, make and save changes.

CALCULATOR

Use the number pad to enter and perform mathematical calculations.

EXCEL VIEWER

View stored documents created in Excel.

PDF VIEWER

View documents stored as PDF files.

IMAGE VIEWER

- View and sort images stored on the device or micro SD card (sold separately).
- View images individually or as a slide show.

• Rotate, cut, crop, adjust the hue, change the brightness and resize your photos.
• Save your changes.

POWERPOINT VIEWER

View stored PowerPoint documents and presentations. Exit the Desktop by pressing the 'X' in the upper-right corner.

WORD VIEWER

View stored documents created in Microsoft word.

SYSTEM INFO

To view your System Information, press the 'System Info' button in the 'Productivity' menu. See **Figure 27**. Use this info to check the current Banks iQ version, System version, and how much memory storage is in the iQ. Press the 'Banks iQ' icon to go back to the 'Productivity' menu.

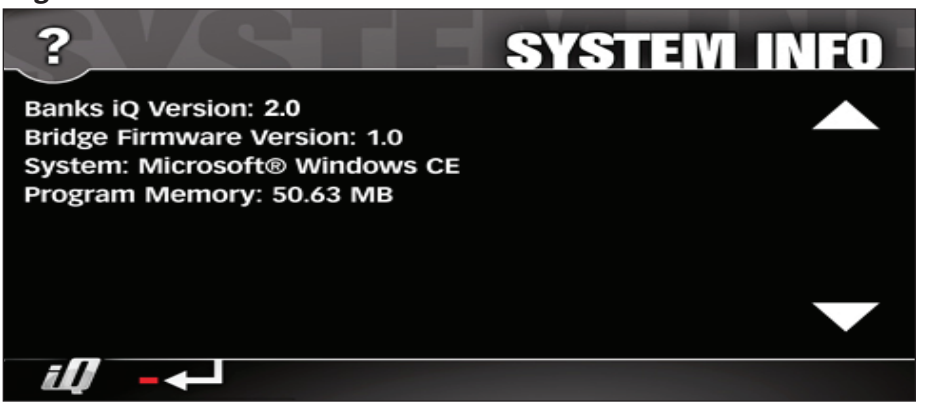
To exit all other Productivity applications, use the method provided by that application. Press on the 'Banks iQ Home' icon to return to Banks iQ functions. See **Figure 28**.

Figure 28

NOTE: Productivity Environment functions will be grayed out and inaccessible while the vehicle is in motion.

-END, SECTION 11-

Figure 27



Section 12
ENTERTAINMENT ENVIRONMENT

ENTERTAINMENT TOOLS

Banks iQ is an all-in-one multi-media entertainment center that you'll enjoy using when you are on-the-go, even if you've left your vehicle behind in a parking lot.

From the ENVIRONMENT SELECT menu, press on the 'Entertainment' button.

Scroll to and/or press any button on the Productivity Screen to start and use the applications listed below.

PHOTO ALBUM

- Supports JPEG, BMP, PND format
- Implement operations, such as slide show, view, rotate, delete.
- Clockwise rotate and counter-clockwise rotate photos.
- Delete photos (deleted photos can't revert).

MUSIC PLAYER

Playback and listen to stored music files through the Banks iQ speaker or through headphones connected to the headphone jack. You can also listen to music through your car or personal/ home stereo by connecting a stereo audio cable (sold separately) to the headphone jack.

MOVIE PLAYER

- Supports MPEG-1, MP4, AVI, WMV, ASF, 3GP, and DivX format files
- Basic playback controls such as play, pause, stop, next and previous
- Switch two functions between full screen and standard screen freely
- Play list support

Playback and enjoy video files stored in a variety of formats. Playback and listen to stored movie files through the Banks iQ speaker or through headphones connected to the headphone jack. You can also listen to the video soundtrack by itself through your car or personal/ home stereo by connecting a stereo audio cable (sold separately) to the headphone jack.

EBOOK READER

- Use the scroll tool to view and read stored ebooks.
- View text, books or documents saved in TXT format.
- Supports ANSI, Unicode and UTF-8 coding formats.

GAMES

- Choose from three pre-installed games FreeCell, Connect or Solitaire.
- Launch compatible WindowsCE game formats (from desktop).

To exit an Entertainment application, use the method provided by that application. Press on the 'Banks iQ Home' icon to return to Banks iQ functions. See **Figure 28**.

NOTE: Entertainment Environment functions will be grayed out and inaccessible while the vehicle is in motion.

-END, SECTION 12-

Section 13
ECONOMY ENVIRONMENT

The Economy Environment will provide you with the most up-to-date status on your vehicles fuel economy.

From the ENVIRONMENT SELECT menu, press on the 'Economy' button. When first initiating the Economy Environment a message will be displayed to set your 'Fuel Cost'.

"In order to accurately calculate certain parameters, you must enter the current cost of fuel & tank size."

Press 'Yes' to set the fuel cost and the tank capacity of your vehicle or press 'No' to continue.

NOTE: Some gauges will be unavailable if fuel cost is not set.

Setting Fuel Cost & Tank Capacity

If you press 'Yes' the iQ will take you to the 'Options' menu. Press on the 'Fuel Cost' tab to set the fuel cost. In the 'Fuel Cost' screen you will be able to enter the dollar amount that was paid per gallon/liter. See **Figure 29**. You may choose to enter the fraction of a cent cost per gallon/liter or press the '$^{9}/_{10}$' in the upper right hand corner. Once the dollar amount has been entered, press 'Done' to return to the 'Options' menu.

In order to maintain the accuracy of fuel economy data, it is important to enter the fuel cost every time you refill the tank. Press on the 'wrench' icon to open the 'Options' menu and then press the 'Fuel Cost' tab or press the '$' icon in the lower part of the Economy Environment screen to enter the Fuel Cost.

Set the 'Tank Capacity' for your vehicle. Press the 'Tank Capacity' tab in the 'Options' menu. In the Tank Capacity screen enter the Vehicles fuel tank capacity. See **Figure 30**. Refer to your vehicles Owner's Manual to enter the correct Tank Capacity to the nearest whole gallon or liter. Once the Tank Capacity has been entered, press 'Done' to return to the 'Options' menu. Press the iQ icon to return to the Economy Environment.

NOTE: For model vehicles with more then one tank only, enter the front main tank capacity only. Do not add the reserve tank capacity.

Figure 29

Figure 30

Figure 31

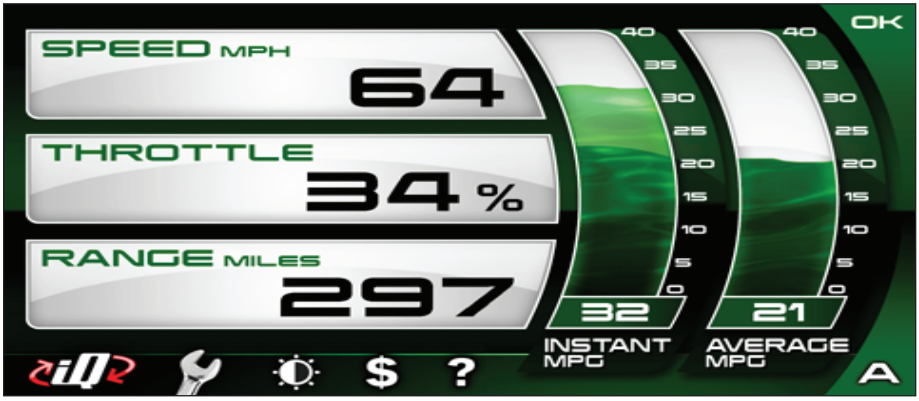
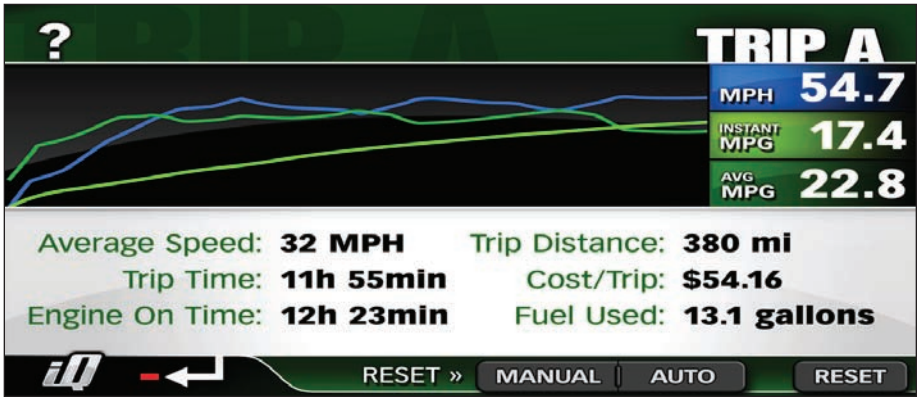


Figure 32



Gauges

There are five (5) gauges displayed in the Economy Environment. See **Figure 31**. The three (3) to the left of the screen can be changed to display the data from a list of available parameters. The two (2) on the right, Instant MPG and Average MPG, can be changed only to increase or decrease the scale display. Refer to 'Gauge Placement' in selection 15 to change the Gauges displayed.

Trip

The Trip feature will keep track of your vehicles Average Speed, Trip Distance, Trip Time, Engine On Time, Cost per Trip, Fuel Used, MPH, Instant MPG, & Average MPG. You can switch between two (2) Trip recordings, 'Trip A' and 'Trip B', by pressing the letter on the lower right corner of the Economy Environment screen. See **Figure 31**. You can view all this information by pressing on the wrench icon in the lower left corner of your screen. In the 'Options' menu press on the Trip information you wish to view. Once you have viewed the information, press the return icon to return to the Options menu or press the iQ icon to return to the Economy Environment.

Reset Trip Information

The Trip information data can be reset by pressing and holding the letter of the trip you wish to clear for 5 seconds on the lower right corner of the Economy Environment screen. You may also reset the trip information by going to the trip data screen for each screen and press the 'Reset' button on the lower right corner. **See Figure 32**.

Trip A has the option to reset automatically. All the data captured will be reset to zero after the engine has been off for more than two (2) hours. To enable this option press on the wrench icon in the lower left hand side of the screen of the Economy Environment screen. In the 'Options' menu press on the 'Trip A' tab. In the lower part of the Trip A screen press 'Auto' to have the iQ automatically reset the trip information or press 'Manual' to manually reset the information. See **Figure 32**. Press the 'Return' icon to return to the 'Options' menu or press the 'iQ' icon to return to the Economy Environment.

-END, SECTION 13-

Figure 33

Figure 34

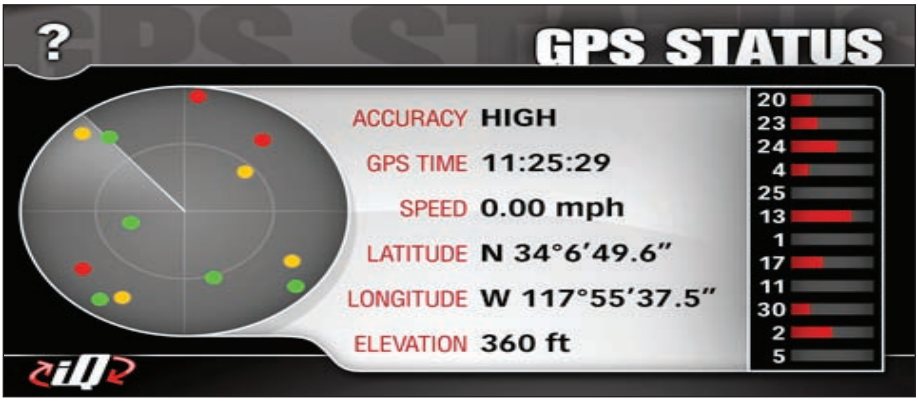
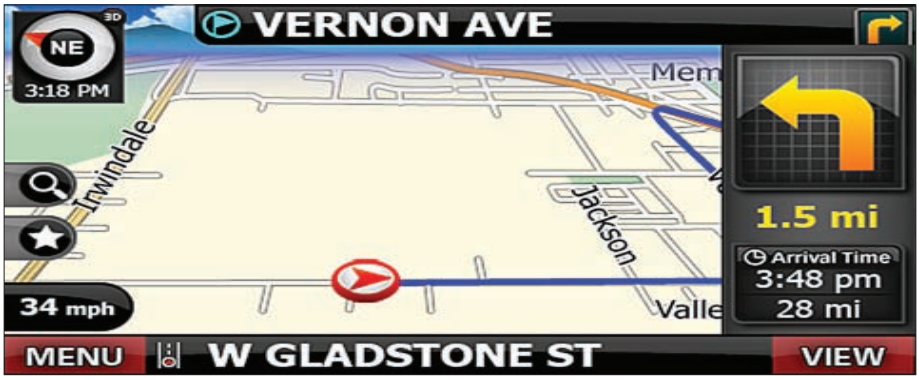


Figure 35



Section 14
COMPASS ENVIRONMENT

Compass

Press on the 'Compass' button in the 'Environment Select' menu. The Compass screen will display four (4) changeable gauges and a compass. See **Figure 33**. Refer to **Selection 19** to change the gauges displayed from a list of available parameters.

The Compass can be adjusted to have the vehicle pointer in the center spin around the compass settings or have the compass spin around the vehicle pointer to show the current heading. To adjust the compass method of direction pointing, press on the 'Wrench' icon to go to the 'Options' menu. Press on the 'Direction' tab in the 'Options' menu. In the Direction menu press 'North up' to have the vehicle pointer rotate around the compass or press 'Direction up' to have the compass rotate around the vehicle pointer. After setting the compass, press the iQ icon to return to the 'Environment Select' menu screen.

-END, SECTION 14-

Section 15
GPS DATA ENVIRONMENT

GPS Data

The GPS Data Environment provides the current status of the GPS in the Banks iQ. In the Environment selection menu press on the 'GPS Data' button. The Data displays the accuracy of the system depending on signal, the GPS Time, the Speed the GPS is traveling, Latitude, Longitude, and the GPS Elevation. See **Figure 34**. After reviewing the data, press the 'iQ' icon to return to the Navigation Environment selection menu.

-END, SECTION 15-

Section 16
NAVIGATION ENVIRONMENT

WARNING! Banks GPS Navigation is an optional feature available to purchase from Gale Banks Engineering. This option is not standard on Banks iQ and will be disabled in the Environment Select menu. The software is sold on a micro SD card and must be inserted into the micro SD card port on the Banks iQ to run the Navigation program. Once the iQ detects the Navigation program the option will be made available for use.

Please contact Banks Sales Department at (888) 635-4565 to purchase a copy of Banks GPS Navigation.

Banks GPS Navigation is a voice guidance program that uses statistical and probability analysis to help you select and set destinations quickly and easily. As you travel, the program displays your location on the map. Voice guidance tells you when and where to turn. See **Figure 35**. The main screen displays turn directions, compass heading, distance to next maneuver, and street names. If you leave your route, the program calculates a new route to your destination automatically.

Please refer to the Banks Navigation manual for step-by-step instruction of the navigation program.

-END, SECTION 16-

Section 17
ADJUSTMENTS MENU

Press the 'Wrench' icon next to the 'Banks iQ Home' icon in the lower left corner of the 'Environment' screen to move to the 'Adjustments' menu.

Press the Left or the Right arrow to navigate through the 'Adjustments' menu. Further discussion of each adjustment option will be covered in the following sections. See **Figure 36**.

-END, SECTION 17-

Figure 36 *'Adjustments' Menu for Power Tuner shown*

Section 18
SET-UP

To change the Banks iQ's settings and alerts, press the 'Wrench' icon to open the 'Adjustments' Menu. See **Figure 36**. These settings include Screen Backlight, Touch Screen Calibration, GPS Speed Calibration, Units (units of measurement), Battery Management, (battery life indicator and sleep settings), Version Info (details about the Banks iQ, Tuner, and SpeedBrake system) and Tuner/ SpeedBrake Update (upgrade, update device firmware).

Screen Backlight

The Banks iQ can automatically dim the system monitor LCD brightness for nighttime operation. You can set the 'Screen Backlight' value that will be used, along with the daytime operating hours. When operating outside these hours the screen will dim to the value you specify.

NOTE: Values are saved as they are changed.

You can manually override your 'Screen Backlight' at any time by pressing on the Day/Night Switch icon on the upper left corner of your Banks iQ screen in the Power, Safety Environments, or Combo screen. See **Figure 37**.

1. Press the 'Wrench' icon in the Power, Safety Environments, or Combo screen.

2. Press the 'Screen Backlight' button in the 'Adjustments' menu. See **Figure 36**.

Figure 37

3. See **Figure 38**. In the 'LCD Properties' screen, press 'Enable' to activate or press 'Disable' to deactivate the Auto Dimming feature. The active selection will be highlighted red.

4. Touch the 'Left' or 'Right' arrow buttons to adjust LCD brightness to the desired level for daytime and nighttime operation. Your brightness selection will preview automatically as changes are made.

5. Set the transition time for auto dimming by pressing the 'Hour' and the 'Min' (minute) buttons below the day and night time.

6. Press the 'Banks iQ' icon on the lower left hand corner to return to the Environment screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Touch Screen Calibration

1. Press the 'Touch Screen Calibration' button in the 'Adjustments' menu.

2. Follow the on-screen instructions and press the targets as they appear on the display screen.

3. Press the 'Banks iQ' icon on the lower left hand corner to return to the 'Adjustments' menu.

GPS Speed Correction

The Banks iQ speedometer uses GPS Speed Correction to deliver improved accuracy over your vehicle's stock unit. It even corrects for non-stock wheels and tires. Calibration is simple and there is no need to use a pace vehicle or manually input tire size.

1. Find an open, uncrowded stretch of road.

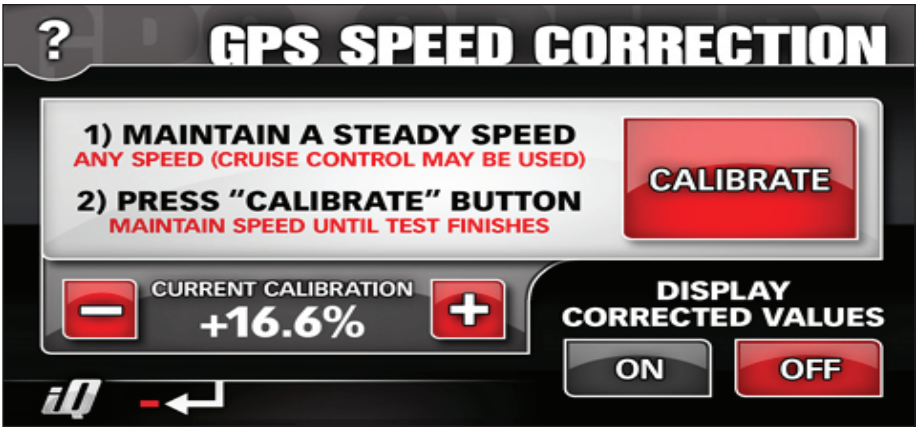
2. Press the 'GPS Speed Correction' button.

3. Maintain a steady speed. Any speed is acceptable. Cruise control maybe used.

4. While maintaining a steady speed, press 'Calibrate'. During the calibration process. The GPS speed and the vehicle speed will be displayed. When the on-screen progress bar disappears from view, Speed Calibration is complete. See **Figure 39**.

Figure 38

Figure 39



5. The calibrated speed can be adjusted manual. Press the plus (+) or minus (-) symbol to increase or decrease the speed calibration.

6. Use the 'On' and 'Off' buttons to display the corrected speed in the gauge environments on your Banks iQ.

7. Press the 'Banks iQ' icon on the lower left hand corner to return to the Environment screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

English/ Metric

1. To change the unit of the displayed gauges, press the 'English/ Metric' button in the 'Adjustments' menu.

2. Press the desired unit to be displayed on the gauges. Choose between English units or Metric units.

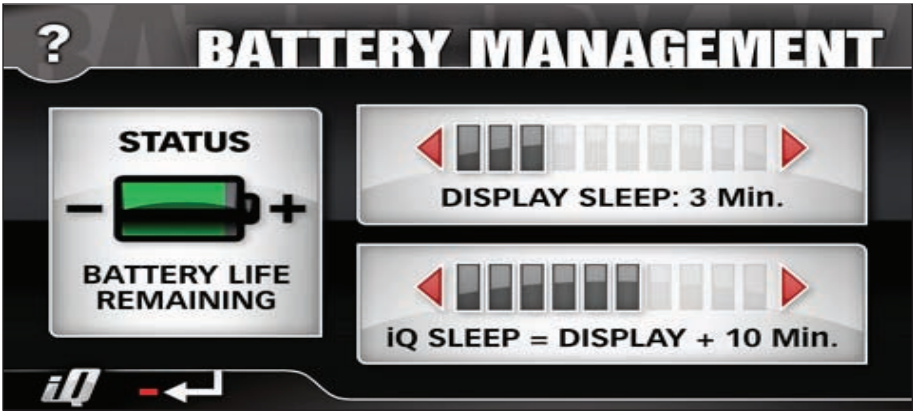
3. Press the 'Banks iQ' icon on the lower left hand corner to return to the Environment screen. Press the 'Return' icon to go back to the 'Adjustments' menu. See **Figure 40**.

Battery Management

1. To change the sleep setting for the Banks iQ, press the 'Battery Mgmt' button in the 'Adjustments' menu. See **Figure 41**.

Figure 40

Figure 41



2. Adjust the 'Display Sleep' time by pressing the left or right arrows.

NOTE: If the display turns off, turn it back on by pressing once anywhere on the screen.

3. Adjust the 'iQ Sleep' time by pressing the 'Left' or 'Right' arrows. iQ sleep will begin to count down after the display has entered into 'Display Sleep' mode.

NOTE: 'iQ Sleep' will occur after 'Display Sleep' has been activated. To manually enter or exit 'Sleep' mode, press the MENU button on top of the device.

4. Press the 'Banks iQ' icon on the lower left hand corner to return to the Environment screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Master Volume

1. To change the Volume Level for the iQ, press the 'Volume' button in the 'Adjustments' menu.

2. To adjust the volume level, press the plus (+) or minus (-) button to increase or decrease the volume level. See **Figure 42**.

3. Press the 'Banks iQ' icon on the lower left hand corner to return to the Environment screen. Press the 'Return' icon to go back to the 'Adjustments' menu.

Figure 42

To update Tuner/SpeedBrake

1. Go to www.bankspower.com/Banks iQ and check for the Banks Power Tuner or SpeedBrake updates. To receive update notices, we invite you to register at **www.bankspower.com/banksiq** to receive important e-mails regarding updates and upgrades for your Banks iQ device.

2. Download them onto your Micro-SD card (sold separately) and insert it into the port on your Banks iQ.

3. Press the 'Update Tuner' or the 'Update SpeedBrake' button on the 'Adjustments' menu.

4. Press the 'Check For Updates' button and available Tuner/SpeedBrake updates will appear in the window. See **Figure 43**. Highlight the appropriate file name from the available list.

5. Press 'Update Tuner' or 'Update SpeedBrake' to download updates into Banks iQ.

NOTE: A warning message will appear if the chosen file is the same or older then the file currently in use.

For more detail instruction to update Banks Tuner/SpeedBrake please go to www.bankspower.com/downloads .

To update Banks iQ Software

1. For Windows XP users, make sure that Microsoft ActiveSync is installed on your computer and that you have an active internet connection.

For Windows 7 and Vista users, make sure that Microsoft Mobile Device is installed on your computer.

NOTE: If you do not have Microsoft ActiveSync or Mobile Device visit www.microsoft.com/windowsmobile or visit Banks website for direct links and detail update instruction at www.bankspower.com/iqupdate

2. Install the Banks iQ Update Utility on your computer by visiting www.BanksPower.com/Downloads.

3. Turn the Banks iQ on and allow it to complete its booting process (about a minute). In the 'Environment Select' menu press on the 'Productivity' Environment. Then press on 'Desktop' tab to open the Windows desktop. For instruction on how to access the Desktop refer to **Section 11**. Then plug the Banks iQ into your PC using the supplied USB cable.

CAUTION: The iQ must be in the the Windows desktop before connecting the iQ to a PC. The iQ will either ignore the connection or register an error if the iQ is not in the 'Desktop' mode.

4. Start the Banks iQ Update Utility and follow the on-screen directions on your PC to update your Bank iQ with the latest software updates.

For more detail instruction to update your Banks iQ please go to www.bankspower.com/iqupdate.

-END, SECTION 18-

Figure 43

Section 19
GAUGE PLACEMENT

*NOTE: To quickly change any gauge in your Banks iQ display, press on the gauge you want to change and you will be taken to the 'Gauge Placement' screen. See **Figure 44**.*

Press the 'Wrench' icon to move to the 'Adjustments' menu. Press 'Gauge Placement', which allows you to change the gauges on view in the display.

1. Press the gauge you want to move or change on the right-hand side. A list of gauges to choose from appears on the left. See **Figure 44**.

2. Scroll Up or Down through the optional parameters available on the left hand side of the screen.

3. Highlight the desired parameter on the left side of the screen.

4. Repeat Step 1 through 3 to change all desired gauges.

5. To save changes, press on the 'Banks iQ' icon to return to the 'Environment' screen or the 'Return' icon to return to the 'Adjustments' menu.

Reset to Default

6. To reset to default gauges navigate through the 'Adjustments' menu.

7. In the Gauge Placement screen, press on the 'Reset to Default' button to return all gauges to the default setting.

8. Press the 'Banks iQ' icon to return to the 'Environment' screen or the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 19-

Figure 44 *Gauge Placement*

Section 20
GAUGE STYLE

Press the 'Wrench' icon to move to the 'Adjustments' menu screen.

Press 'Gauge Style', which allows you to change the style of the gauges in your display.

1. Scroll Right or Left to view all available gauge style choices. Stop when you see the style you want for your gauge display. See **Figure 45**.

2. Press the 'Banks iQ' icon to save your gauge style and return to the 'Environment' where you can see it in action.

3. Press the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 20-

Figure 45 *Analog Gauge Style*

Section 21
GAUGE COLOR

Press the 'Wrench' icon to move to the 'Adjustments' menu screen.

Press 'Gauge Color', which allows you to change the color of the gauges in your display.

1. Scroll Right or Left to view the spectrum of color choices. Stop when you see the color you want for your gauge display. See **Figure 46**.

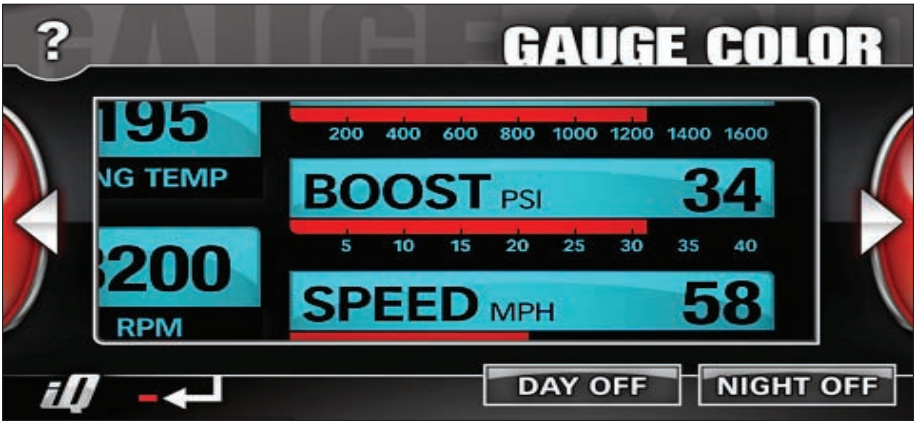
2. Use the 'Day On/Off' button to determine if you want the color you've chosen displayed during the day time Screen Backlight hours you selected in 'Initial Set-up'. For more information on Screen Backlight, see **Section 18**.

3. Use the 'Night On/Off' to determine if you want the color you've chosen displayed during the night time Screen Backlight hours you selected in 'Initial Set-up'. For more information on Screen Backlight, see **Section 18**.

4. Press the 'Banks iQ' icon to save and return to the 'Environment' screen or the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 21-

Figure 46 *Gauge Color*



Section 22
GAUGE DESCRIPTIONS

Receive Update Notices

Banks iQ is constantly evolving and new gauges in addition to the ones described below may be available. We invite you to register at **www.bankspower.com/banksiq** to receive important emails regarding updates and upgrades for your Banks iQ device.

Following is a list of the gauges you can choose to be in your Banks iQ display and what they measure.

NOTE: Not all gauges are accessible in all environments.

BOOST: Measures turbocharger air pressure above atmospheric pressure being delivered to your vehicle's intake manifold in your choice of pounds per square inch or bar (PSI or BAR).

BARO: Measures the barometric (atmospheric) pressure outside your vehicle in inches of mercury (inHg).

SPEED1 & 2: Measures how fast your vehicle is going in your choice of miles per hour or kilometers per hour (MPH or KM). Display Speed limit 0-140 MPH (0-220 KM) or 0-220 MPH (0-360 KM).

RPM5K & 8K: Measures how fast your engine's crankshaft is spinning in revolutions per minute (RPM). Displays RPM limit 0-5000RPM or 0-8000RPM.

ENG TEMP: Measures the temperature of vehicle's engine coolant in your choice of degrees Fahrenheit or Centigrade (F or C).

TRANS: Measures the temperature of the transmission fluid in your choice of degrees Fahrenheit or Centigrade (F or C).

INT TEMP: Measures the vehicle intake air temperature in your choice of degrees Fahrenheit or Centigrade (F or C).

AMB TEMP: Measures the temperature of the air outside the vehicle in your choice of degrees Fahrenheit or Centigrade (F or C).

POWER: Measures in percentage the amount of extra power above stock currently being delivered by your Banks Power Tuner if applicable.

THROTTLE: Displays in percentage the amount of throttle currently being applied.

TRANS SLIP: Displays the difference in transmission shaft input speed and output speed in revolutions per minute *(RPM).*

TCC: Displays if torque converter clutch is currently on or off (ON/OFF).

GEAR: Displays the gear currently in use on the vehicle.

ELEVATION: Measures the elevation you are driving at in your choice of Feet or Meters above sea level (FT or M).

NOTE: Elevation should be accurate within +/- 50 feet or 15 meters 95% of the time. On rare occasions, you may experience a variance greater than +/- 15 meters or 50 feet. This is considered normal for devices of this type.

EGT: Measures vehicle's exhaust gas temperature in your choice of degrees Fahrenheit or Centigrade (F or C).

NOTE: Some vehicles require installation of exhaust thermocouple (sold separately) to measure EGT. Please refer to your vehicle owner's manual for more information.

BRAKE: Measures in percentage the amount of exhaust brake force being delivered by your Banks SpeedBrake® if applicable.

TIME AM/PM & 24HR: Display the current time in 12 hour standard time or 24 hour military time.

-END, SECTION 22-

Section 23
ON SCREEN ALERTS

1. Select the 'Wrench' icon to go to the 'Adjustments' menu. Press the 'On Screen Alerts' button.

2. Scroll Up or Down through the optional Alert Parameters available on the left hand side of the screen. See **Figure 47**.

3. Highlight the desired parameter on the left side of the screen.

4. Press the plus (+) or minus (-) symbols to increase or decrease the selected parameter Alert Set Point. The display shows the adjusted value.

NOTE: The limit for each parameter Alert Set Point is displayed right above the adjusted value Set Point.

5. To set the volume sound level for the alerts, Press the plus (+) or minus (-) symbol below the 'Reset' button to increase or decrease the sound level. Three (3) volume levels plus a silent mode are available.

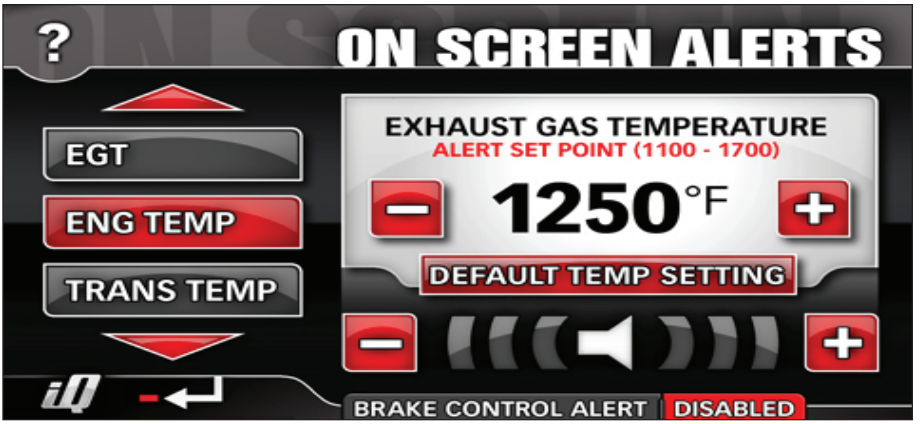
6. Repeat steps 2 through 5 to adjust all the desired parameters.

7. Once all parameter have been adjusted and to save changes, press the iQ icon to return to the Environment screen or the 'Return' icon to return to the 'Adjustments' Menu.

*NOTE: In the event an alert set point is reached an audible alarm will sound and the Status Indicator will display an icon relative to the associated alert. See **Figure 48** and the alert descriptions. The alarm will turn off once the associated parameter is below its alert set-point. The Status Indicator will then return to 'OK'.*

8. You can return Banks iQ to its default alert settings at any time by pressing the 'Reset To Default' button.

Figure 47 *Alert Screen*



Alert indicator Description

SEARCHING- A searching icon will indicate a communication error between the Banks iQ, Bridge, Tuner, Brake, and/ or the vehicle. Go over all wiring and make sure they are proper connected.

VEHICLE SPEED- The vehicle speed icon will indicate the vehicle speed is above the user alert set point. Lower your speed below the set speed to clear the alert.

TUNER FAULT- A error with the tuner will set off an alert. Follow the trouble shooting in **Section 26** to correct the problem.

TRANS TEMP- The transmission temperature is over the user alert set point. Safely stop the vehicle and check the transmission.

OIL TEMP- The vehicle engine oil temperature is over the user set alert point. Safely stop the vehicle and check the engine oil.

RPM- The vehicle RPM is over the user set alert point. Reduce speed to lower RPM. If alert continues, safely stop the vehicle and check your engine.

BOOST- The vehicle boost is over the user set alert point. Safely stop the vehicle and check the turbo connections.

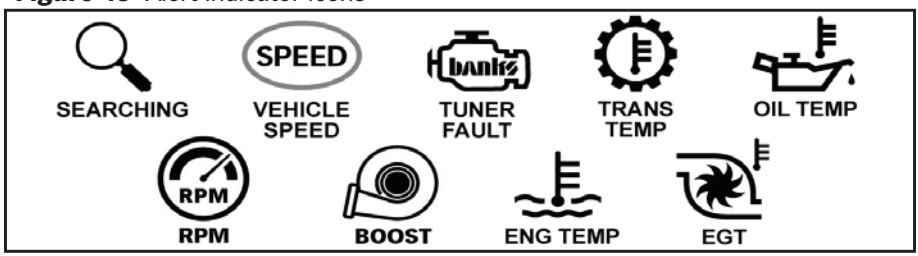
ENG TEMP- The Enigne temperature is over the user set alert point. Safely stop the vehicle and check the engine.

EGT- The Exhaust Gas Temperature is over the user alert set point. Reduce speed to reduce the EGT's.

Go to the begin of this section to adjust the user alert set point for any alert.

-END, SECTION 23-

Figure 48 *Alert indicator icons*



Section 24
MAX VALUES

Max Values allow you to observe the maximum values that have been achieved for the parameters available for your vehicle since the last Reset cycle. See **Figure 49**.

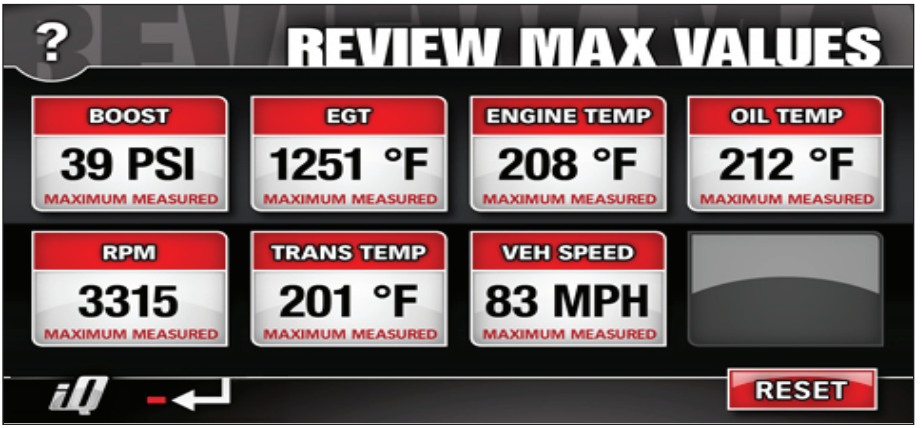
1. To view Max Values, in the 'Adjustments' menu press the Max value button.

2. After viewing your Max Values you can reset to clear the current values. Press the 'Reset' button in the lower right hand corner. A pop-up screen will appear to confirm reset. Press 'yes' to confirm reset value, press 'no' to cancel reset.

3. After viewing your Max Values, press the 'Banks iQ' icon to return to the Environment screen or the 'Return' icon to return to the 'Adjustments' menu.

-END, SECTION 24-

Figure 49



Section 25
VERSION INFO

The current version of the Banks iQ, Banks Power Tuner, and/or SpeedBrake can be checked and compared to the current version available on the Banks website.

1. In the 'Adjustments' menu press the 'Version Info' button.

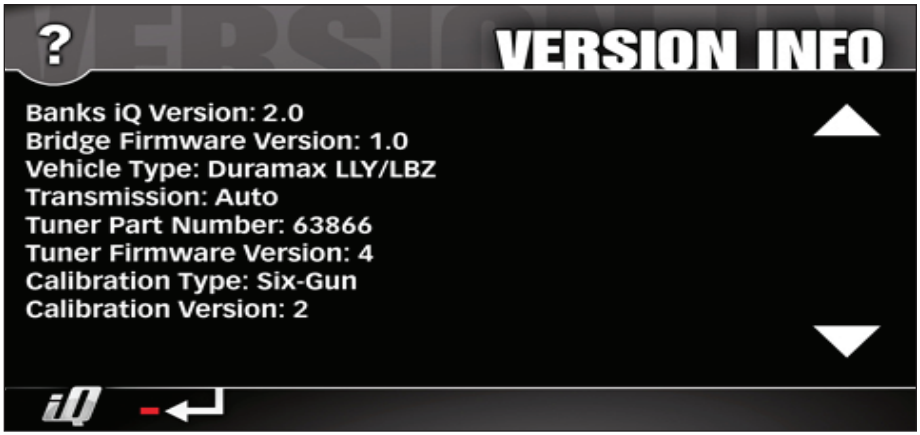
2. The version Info screen will display the current firmware version, as well as various other system configuration information. See **Figure 50**.

3. Press the arrows to scroll through the 'Version Info' screen. All available device information will be displayed.

4. Press the 'Return' icon to return to the 'Adjustments' Menu or press the 'Banks iQ' icon to return to the Environment screen.

-END, SECTION 25-

Figure 50



Section 26
TROUBLESHOOTING

Banks Bridge

The Banks Bridge Module transports information back and forth between your vehicle and Banks iQ. Note that there are two green lights on this Module. With the ignition off and the Banks Bridge viewed with the "banks" logo reading properly, the right hand light will pulse on and off. With the engine running and Banks iQ connected, both lights will switch back and forth to tell you that Banks iQ is communicating with your vehicle. Should Banks iQ become disconnected, the left light will pulse on and off to tell you that communication has been interrupted.

Loss of communication between Banks iQ and vehicle.

A magnifying glass icon will appear in the upper right-hand corner of Banks iQ display. See **Figure 51.**

Figure 51

Searching Icon

1. Make sure the vehicle ignition key is in the ON position.

2. Make sure the Banks iQ is properly connected to vehicle as described in **Section 3**.

3. Check the connection at the OBD II diagnostic port (under the driver's side dash area). Check for any damage to the ODB II connector "hood", such as if it has become dislodged from the connector housing.

4. Check the RJ12 connection at the Banks Bridge.

5. Check the USB connection at the Banks iQ.

6. Check all Banks Power Tuner and/or SpeedBrake wiring, power, and fuse connections (refer to the Banks Power Tuner and/or SpeedBrake user's manual(s) for troubleshooting details).

Loss of Tuner-added power

7. Check to make sure the Banks iQ's Status Window displays the "OK" message, indicating the tuner is powered-up and communicating properly.

8. Check the Banks iQ Power Level Indicator for the proper setting (Power Level "1" is stock vehicle power).

9. Check the Banks iQ Status Indicator for the "OK" icon. Any Banks Power Tuner fault will be indicated by the Check Engine icon shown in **Figure 52.** Simply press on the 'Banks' Engine icon to go to the 'Power Diagnostics' menu. Or, press on the 'Wrench' icon to go to the 'Adjustments' menu. Press on the Diagnostics button, then press Power Diagnostics.

Figure 52

Banks Engine Icon

10. Refer to the Banks Power Tuner user's manual for further troubleshooting details.

-END, SECTION 26-

Notes

Notes

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